

## CLAIMS

1. A work tool comprising:  
a principal drive shaft with a sun gear attached thereto;  
5 n planetary gears distributed about the circumference of the sun gear at substantially equal angular separation; and  
a carriage for constraining the planetary gears such that they maintain their angular separation about the axis of the principal drive shaft; wherein  
each planetary gear has an eccentric axis in addition to its rotational axis  
10 constrained by the carriage, such that each planetary gear can drive, in use, a platen around the respective eccentric axis, and wherein  
the rotation of the eccentric axis of a first planetary gear about its associated rotational axis has a phase difference in a clockwise direction of  $2\pi/n$  relative to the rotation of the eccentric axis of a second planetary gear about its associated rotational  
15 axis, the second planetary gear being adjacent to the first planetary gear in a clockwise direction.
2. A work tool according to claim 1, wherein the principal drive shaft is connected to a motor.
- 20 3. A work tool according to either claim 1, wherein the platens can rotate freely.
4. A work tool according to either claim , wherein the platens are partially rotationally constrained.
- 25 5. A work tool according to claim 1, arranged to be a polisher.
6. A work tool according to claim 1, arranged to be a sander.

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